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ABSTRACT

The rational model of classical economic theory assumes that the decision maker has complete information on alternatives and consequences, and that he chooses the alternative that maximizes expected utility. This model does not allow for constraints placed on the decision maker resulting from lack of information, organizational pressures, interpersonal relations, his intrinsic psychological state, and his self-created role. The authors have developed a behavioral model that retains the rigor of the classical model while providing for a latitude of realism. The decision maker, with knowledge only of his last two decisions and the state of the organization relative to its goals, tries to repeat successful behavior and avoid unsuccessful behavior. The model converges on the classical result under certain conditions. The model, not presented in this document, appears in document EA 002 912. (DE)

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RELEVANCE OF A MANAGERIAL
DECISION-MODEL TO EDUCATIONAL
ADMINISTRATION

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A crucial factor in the study of administration of the educational situation is decision-making. Yet when the investigator turns to the problem of decision-making, he generally has found either a group of models of decision-making, called rational or synoptic, which have little relevance to the real world of everyday choice behavior, or else he has found a collection of data, disjointed and detached from theory and systematic treatment.

Some investigators have thrown up their hands and said "some model other than the classical rational model of decision-making may be more relevant to education." But these investigators never tell us what that other model is. This is the problem which confronts us today.

Organizational behavior has been characterized predominantly in terms of the rational or synoptic model of classical economic theory. Logical processes and the adoption of means to ends, according to Chester Bernard, is the essence of formal organization. While such characterization has produced numerous insights and analytic tools for understanding organizational behavior, much of the substance of man's behavior in an organization has been sacrificed.

Indeed, there are numerous constraints on the rationality of the decision-maker. We will consider the model of rational decision-making and its characteristics and examine its limitations. Then, since environmental influence plays so heavily in the dynamics of organizational life,

we will note environmental constraints on the decision-maker. Finally, we will consider the individual constraints on decision-making.

The synoptic model of decision-making was first developed by such economists as Pareto. Here the manager has complete information about all the alternatives open to him, and the consequences of these alternatives. He chooses that alternative which maximizes expected utility.

Criticism of this rational or synoptic model of decision-making can be classified in terms of personal psychological traits and organizational structure. Classical theory assumes there are no psychological characteristics of economic man which constrain his decision behavior. Psychological limits of the individual render prediction and computation of events and pay-offs less than perfect. In order to predict consequences accurately, an individual must be aware of the determinants of relevant events and of the likelihood of their occurrence, as well as of a host of other surrounding conditions with which he deals directly. Added to this imbroglio is the presence of other organizational actors surrounding the decision-maker, each of whom are trying to make decisions that will optimize their own satisfaction.

The manager is limited in his problem-solving capabilities by his ability to estimate consequences of behaviors and by his information gathering capabilities. The decision-maker must construct simplified predictive models of complex real world situations, models which will be colored by his knowledge and perception of a given circumstance.

On the other hand, the availability of information for decision-making poses a constraint on the possibility of rational behavior. The rational or synoptic model requires complete information. Since information gathering presents definite costs, one element in the decision process will be, in Herb Simon's words, the determination of how far the mapping of alternatives and consequences is to be refined. Also, information is not neutral. As Katz and Kahn explain, an individual seeks undistorted information from and tends to give distorted information to others. Because of the cost of information gathering and the possibilities for distortion of information, the comprehensiveness and objectivity of any decision will be less than the perfection promised by the synoptic model.

Contrary to the supposition of the rational model, the relationship between the organization and its environment is characterized by interdependence. An organization depends on the environment for inputs, such as people and materials, and for support. The environment, in a sense, depends on the organization to transform the input and to create output in the form of products or services.

This environment, surrounding the organization, also interacts with the individual, constraining his decision-making. Organizations, under ecological pressures, create mechanisms and channels for decision-making. These mechanisms and channels may be either planned or fortuitous. In Simon's terms, the organization largely determines the mental set of the decision-maker, and sets the conditions for rationality.

Indeed, the institution defines rationality. It establishes the limits of rationality for the nexus wherein the individual's decision takes place. Individual choice is largely circumscribed in a organization by different types of central pressures. Herbert Thelen has suggested three different institutional forces reducing human variability and thus constraining choice: environmental pressures such as task requirements, shared values and expectations, and rule enforcement.

We have discussed two areas of environmental influence on decision-making: the influence of the environment on the organization and the influence of the organizational environment on the individual. Now we proceed to the third environmental influence, interpersonal relations. Interpersonal relations are herein considered as manifestations of role behaviors for the sake of generalizing about interactions among role occupants. We can define an organization, as Simon does, as a network of interrelated role behaviors.

A social psychological perspective will enable us to understand the fortuitous mechanisms of interpersonal relations impinging on decision-making. A decision is not made in a vacuum. Aside from the environmental pressure, the decision-maker anticipates social approval or disapproval and personal approval or disapproval. These factors are affected not only by the conscious goals, but also by the preconscious and unconscious affective sets which they have for the decision-maker.

Personal motivational forces affect the decision-making process. Lewin states that one of the factors affecting the psychology of the gatekeeper is motivation. Both external forces aroused by role pressures and internal sources of motivation affect the decision-making process, according to Kahn. These internal sources of motivation include the decision-maker's intrinsic psychological state and the role the decision-maker defines for himself--his occupational self-identity. The motivation of the decision-maker may be altered by the organization's formal or informal reward system or by an alteration of the organizational structure so that the participant may identify himself with the organization. If an individual identifies with an organization in such a way that he relates to its goals, internalizes its values, and so forth, broad organizational arrangements will inform decision-making behavior and make it more rational in terms of the institution's definition of rationality.

No matter how well he identifies, however, an organizational member, as decision-maker, is subject to personal and social fallibility in any choice situation. Position in social space will affect one's experience, one's attitudes, and one's judgment, hence one's choices. The gatekeeper, or decision-maker, is subject to indirect control by his peers and the roles they define for him or other members of the organizational family.

Since organizations specialize functions and divide labors among organizational members, any single organizational member will suffer from parochialism. Another social psychological factor limiting decision-

making is the projection of attitudes and values. Lacking objective data, a decision-maker will assume that groups within or outside the organization share the same values as he holds. Identification, while having the positive qualities of engulfing the organization member in the value system of the organization, can also be injurious if the member identifies with outside reference groups. Alternately, a decision-maker may be remote from a group in terms of psychological contact, and may regard that group as an undifferentiated entity. Equally dangerous is the habit of dichotomized, either-or thinking when the subject is values. Many problems are multi-dimensional and involve a continuum of positions of values.

We have shown the inappropriateness of the synoptic or rational model of decision-making applied to the organization. We have discussed environmental, organizational, interpersonal, and individual constraints on the decision-making process. What is required, then, in the analysis of decision-making, is a substantive discourse on the individual and environmental constraints on decision-making behavior. We now present a model more congenial to a realistic view of organizational behavior, including empirical rigor and psychological reality. Our discussion has presaged an incremental model of decision-making; a model sufficiently robust to accommodate the rigors of analysis and the realities of individuals making decisions. Only such a model will be useful to the student of educational administration.

A number of so-called behavioral models of decision-making have been developed. In the main, these models have foregone the formal rigor of the synoptic model to acquire realism. Thus they are presented by means of anecdotal evidence and the case study, standbys of administrative theory. We must recognize that for all its shortcomings of unreality, the rational model is a superb analytic device. Thus we seek to incorporate its formal virtues in a more realistic model.

We have developed a behavioral model of decision-making which has these properties. The decision-maker has knowledge only of the state of his organization and its movement toward its goal. Thus the model reflects both the impossibility of omniscience and the cost of acquiring information, both of which were ignored by the synoptic model. Indeed, the decision-maker knows no more than his last two decisions. He knows the state of the organization in terms of output, and the results of his decisions on the criterion measure.

Since the decision-maker is otherwise in ignorance, he cannot try to maximize synoptically his attainment of the organizational goal.

Rather than seek to maximize this goal directly, the decision-maker must operate on two "learning principles": either he tries to repeat successful behavior and avoid unsuccessful behavior, or else he tries to use more restraint in his behavior, if it is necessary for him to repeat an already unsuccessful behavior.

As Richard Day has shown, the behavior of the decision-maker described by this model can deviate from the "rational ideal" as much as necessary. This deviance is accommodated by the introduction of a suitable, satisficing parameter which reflects the cost of acquiring information, the pressure of environmental and other extraneous forces, as well as the other organizational circumstances which inhibit pure rationality.

Of great importance is the property of this behavioral model that it converges, in effect, to the optimizing behavior described by the synoptic or rational model. As the demands on the decision-maker become more stringent, as less tolerance of deviance can be permitted, the satisficing parameter reflects this increasing stringency. Our behavioral model shows the essential continuity of a formalized behavioral model with the rational model.

Thus we are faced with the pleasant circumstance that we do not need to choose between a rational model with its virtues of rigor and a behavioral model and its virtues of realism. Rather than the dichotomy proposed by Braybrooke and Lindblom, and others, we can choose a model specifically suited to our needs in educational administration, yet know that this model will fit into the larger scheme of decision theory.

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